UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JUN 09 1988

SUBJECT: ACTION MEMORANDUM - Ceiling Increase Request for the Removal Action at the Lusher Street Site, Elkhart, Indiana (Site Spill ID #AB)

FROM: Kenneth M. Theisen, On-Scene Coordinator
Emergency & Enforcement Response Branch

TO: Basil G. Constantelos, Director
Waste Management Division

THRU: Mary Gade, Acting Associate Division Director
Office of Superfund

PURPOSE

The purpose of this memorandum is to obtain your approval for a ceiling increase of up to $34,500 for the restart of removal actions at the subject site. The restart would provide for the connection of seven residences and two small businesses to the City of Elkhart's municipal water system, and for the purchase and installation of 19 point-of-use activated carbon drinking water filters to be used as a preventative measure to protect those residents whose wells lie in the path of the contaminated groundwater plume. The plume is contaminated with various volatile organic compounds (VOCs) of which trichloroethene (TCE) and trichloroethane (TCA) are of most concern. The removal action levels for these two compounds are 128 parts per billion (ppb) and 500 ppb respectively.
The proposed funding will allow the restart of this action and the completion of the Lusher Street project as it was originally brought to your attention in the action memorandum of December 21, 1987.

BACKGROUND

In November 1987 the Elkhart County Health Department (ECHD) requested that the U.S. Environmental Protection Agency (U.S. EPA) verify the results of a routine sampling program which indicated the presence of high levels of TCE and TCA in residential wells within the city limits, in and adjacent to Lusher Street. The Indiana Department of Environmental Management (IDEM) was also made aware of the problem at that time. The U.S. EPA's On-Scene Coordinator (OSC) and its Technical Assistance Team (TAT) confirmed the data and took the necessary action to mitigate the situation. This involved connecting two homes to the municipal water system and installing point-of-use carbon filter systems in homes with lesser amounts of contamination. That action was completed December 31, 1987.

RECENT ACTIONS

Commencing in January 1988, a staged series of samples were taken in an attempt to delineate the contaminated plume, determine the direction of groundwater flow, and locate possible additional affected homes. This approach has been used successfully before in similar groundwater contamination

sites in the area. It serves to limit the number of samples that need to be collected. A total of 45 residences in the area were sampled. A careful scrutiny of the well locations with respect to historic groundwater flow direction as determined by the U.S. Geological Survey, indicated a slightly different direction of flow. This could possibly be due to groundwater utilizing the path of least resistance as provided by sewer lines or other utility lines which are customarily "sand packed".

The residences that were sampled revealed two that contained either TCE or TCA in excess of the removal levels, with five additional wells containing levels within 50 percent of the Drinking Water Equivalent Level (DWEL). The highest levels found were 1,100 ppb of TCA and 100 ppb of TCE. Nineteen homes, some of which contained minor amounts of VOCs between the DWEL and non-detectable, lie directly in the path of potential future contamination.

PROJECT SCOPE & ESTIMATED COSTS

Those seven residences and businesses whose wells contain VOC concentrations within 50 percent of, or in excess of the DWEL, will be connected to the municipal water system. The 19 residences whose wells lie directly in the path of the plume will be protected by utilizing point-of-use drinking water filters. This system has been used effectively in similar projects.

The scope of this remedy differs from the large similar removal project designated the "Main Street Well Field" also located in Elkhart, Indiana, done during 1985 through 1987. In that project all homes in the path of the advancing plume were connected to the municipal system. This was done because of the extreme nature of the contaminant levels (19,000 ppb of TCE) and because of the close proximity of the homes at risk to possible sources. At the Lusher Street site the 19 homes in the path of the plume are not close to any known source and the levels of the contaminants are considerably lower. With periodic monitoring to be performed by the ECHD, the point-of-use systems will more than adequately safeguard the residents should plume conditions change.

This remedy has been coordinated with the ECHD, the Mayor's office, and the Indiana Department of Environmental Management (IDEM). The IDEM has also agreed to assist the homeowner with maintenance costs.

Estimated costs of the proposed project are as follows:

	Present Ceiling	Proposed Increase	Proposed Ceiling
Cleanup Contractor	$21,825	$13,225	$35,050
Contingency	-0-	4,400	4,400
Subtotal	$21,825	$17,625	$39,450
TAT	18,175[1]	8,025	26,200
Extramural Subtotal	$40,000	$25,650	$65,650
Extramural Contingency	-0-	3,850[2]	3,850[2]
Extramural Total	$40,000	$29,500	$69,500
U.S. EPA Direct	$ 5,000	$ 1,500	$ 6,500
U.S. EPA Indirect	$ 5,000	$ 3,500	$ 8,500
INTRAMURAL TOTAL	$10,000	$ 5,000	$15,000
PROJECT TOTAL	$50,000	$34,500	$84,500

Notes:

[1]Costs as presented differ from those shown in the December 21, 1987 action memorandum due to the redirection of the first contingency ($3,500) and the entire extramural contingency ($5,925) to TAT.

[2]These funds could be committed as needed between the cleanup contractor and the TAT (e.g., $2,650 for a cleanup contractor contingency and $1,200 for a TAT contingency).

RECOMMENDATION

Because conditions at the Lusher Street groundwater contamination site continue to meet the National Contingency Plan (NCP) Section 300.65 removal criteria, your approval for this ceiling increase is recommended. Additional funding amounting to $34,500 is requested of which up to $20,275 ($13,225 line item, plus $4,400 contingency, plus up to $2,650 of the extramural contingency as annotated) could be extramural cleanup contractor costs. With your approval, the site ceiling will be increased to $84,500, of which up to $42,100 ($35,050 line item, plus $4,400 contingency, plus up to $2,650 of the extramural contingency as annotated) could be extramural cleanup contractor costs. The proposed restart will successfully terminate the immediate threats posed at the site and will complete the project. You may indicate your decision by signing below.

LUSHER STREET SITE
ELKHART, INDIANA

APPROVAL: _____ DATE: 5/9/88
Basil G. Constantelos, Director
Waste Management Division

DISAPPROVAL: _____ DATE: _____
Basil G. Constantelos, Director
Waste Management Division

ATTACHMENT I

ESTIMATE OF COSTS TO COMPLETE
LUSHER STREET SITE, ELKHART, INDIANA

A. Contractor Hours	
1. Engineer $77.10 per hr. (8 hours)	$ 617
2. Field Clerk $21.40 per hr. (8 hours)	161
Subtotal	$ 788
B. Sub-Contractor	
1. 19 Point-of-use Carbon Filters 255 per unit installed	$ 4,275
2. 9 top in fees at $390 per	3,510
3. 9 connections to municipal system at $1200 average including landscaping.	$ 10,800
4. 400 feet of private line at $25 per feet	$ 10,000
5. 2% Contractor I.D.C. on the above	565
Subtotal	$ 29,150
Cleanup Contractor Subtotal	$ 29,150
Contingency (15%)	4,400
Subtotal	$ 33,550
TAT (90 hr. at $65 per field hour)	$ 5,850
TAT (60 hr. at $40 per office hour)	2,400
Subtotal	$ 8,250
Extramural subtotal	$ 41,800
Extramural contingency (15%)	3,850
EXTRAMURAL TOTAL	$ 45,650
U.S. EPA Direct	$ 3,000
U.S. EPA Indirect	6,000
INTRAMURAL TOTAL	$ 9,000
PROJECT TOTAL	$ 54,650

ATTACHMENT II

FUNDING HISTORY FOR THE LUSHER STREET SITE

	Present Ceiling[1]	Costs to Date	Estimated Costs to Complete	Proposed Ceiling	Proposed Increase
Cleanup Contractor	$21,825	$ 5,900	$29,150	$35,050	$13,225
Contingency (15%)	-0-	-0-	4,400	4,400	4,400
Subtotal	$21,825	$ 5,900	$33,550	$39,450	$17,625
TAT	$18,175	$17,950	$ 8,250	$26,200	$ 8,025
Extramural Subtotal	$40,000	$23,850	$41,800	$65,650	$25,650
Extramural Contingency (15%)	-0-	-0-	$ 3,850	$ 3,850	$ 3,850
EXTRAMURAL TOTAL	$40,000	$23,850	$45,650	$69,500	$29,500
U.S. EPA Direct	$ 5,000	$ 3,500	$ 3,000	$ 6,500	$ 1,500
U.S. EPA Indirect	5,000	2,500	6,000	8,500	3,500
INTRAMURAL TOTAL	$10,000	$ 6,000	$ 9,000	$15,000	$ 5,000
PROJECT TOTAL	$50,000	$29,850	$54,650	$84,500	$34,500

Note: [1]Costs as presented differ from those shown in the December 21, 1987 action memorandum, due to redirection of first contingency ($3,500) and entire extramural contingency ($5,925) to TAT.